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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,027	07/29/2003	Martin Kreuzer	TRW(ASG)6674	7775
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TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 1300 EAST NINTH STREET, SUITE 1700 CLEVEVLAND, OH 44114			ROSENBERG, LAURA B	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,027	KREUZER, MARTIN	
	Examiner	Art Unit	
	Laura B. Rosenberg	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1,3-13 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed 18 May 2006, in which claims 1, 14, 15, and 17 were amended, claim 16 was canceled, and claims 18 and 19 were added.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Okada (3,758,133). Okada discloses a gas bag protection device (best seen in figures 5, 6) comprising:

- Gas bag (including #3) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (including portion of #3 covered by #8) in outer wall
- Membrane (including #8) made of an extensible, second material (for example, film) fastened to outer wall and covering the outflow opening when gas bag is not fully inflated (best seen in figure 5)
- First material and membrane defining an inflatable volume of the gas bag (best seen in figures 5, 6) that varies depending upon the load applied to the gas bag (for

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example, inflatable volume changes when a large load is applied and the membrane is cut)

- Device (including #9) outside gas bag that serves to destroy membrane (for example, can be seen destroying membrane in figure 6)
- Gas bag and device spaced far enough apart that membrane meets device only when a predetermined internal pressure of the gas bag has been reached (best seen in figure 6)
- Membrane in a folded gas bag state arranged inside the gas bag (best seen in figure 5) and turned outwards through the outlet opening on inflation of the gas bag (best seen in figure 6)
- Outflow opening is covered only by the membrane (best seen in figure 5)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-8, 13, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (3,758,133) in view of Braunschadel (6,056,318). Okada discloses a gas bag protection device (best seen in figures 5, 6) comprising:

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- Gas bag (including #3) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric) and defining an inflatable volume (best seen in figures 5, 6)
- Outflow opening (including portion of #3 covered by #8) in outer wall
- Membrane (including #8) made of an extensible, second material (for example, film) fastened to outer wall and covering the outflow opening when gas bag is not fully inflated (best seen in figure 5)
- Device (including #9) outside gas bag that serves to destroy membrane (for example, can be seen destroying membrane in figure 6)
- Gas bag and device spaced far enough apart that membrane meets device only when a predetermined internal pressure of the gas bag has been reached (best seen in figure 6)
- Membrane in a folded gas bag state arranged inside the gas bag (best seen in figure 5) and turned outwards through the outlet opening on inflation of the gas bag (best seen in figure 6)
- In a destroyed state, membrane defines an effective outflow cross-section (best seen in figure 6)
- Device (including #9) provided on an "inner face" of a steering wheel (steering wheel not labeled, but is positioned in front of driver as seen in figures 1, 2)
- Outflow opening is covered only by the membrane (best seen in figure 5)
- Gas bag remains "rearward" from the device when the membrane is destroyed by the device (best seen in figure 6)

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- Membrane defines a recess (for example, recess formed by portion of membrane #8 that is not overlapped by gas bag #3; best seen in figure 5) that extends inwardly of the gas bag from the outlet opening prior to inflation of the gas bag (recess extends inwardly at all times, including prior to inflation, except when membrane is pierced by device #9)
- Recess having side walls (for example upper, lower, left, or right side walls) that extend inwardly from the outlet opening (can be seen in figure 5)

Okada does not disclose the membrane bulging toward an exterior before reaching the device, the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag, inflatable volume defined by the first material and the membrane increasing when the membrane bulges forward toward the exterior, or the membrane being made of an elastic/elastomeric material.

Braunschadel teaches a gas bag protection device (figures 1-3) comprising:

- Gas bag (including #1) having outer wall made of first material (bag material not specified, but most gas bags are made of some type of fabric)
- Outflow opening (including #2) in outer wall (best seen in figure 1)
- Membrane (including #4) made of an extensible, second material (for example, elastic/elastomeric fabric) fastened to outer wall and covering outflow opening when gas bag is not fully inflated (shown in exploded view in figure 1)

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- Membrane in a folded gas bag state arranged inside the gas bag and turned outwards through the outlet opening on inflation of the gas bag, bulging forward toward an exterior (column 2, lines 42-48)
- In a "destroyed" state, membrane defines an effective outflow cross-section and provides for an adjustment in size of the outflow cross-section as a function of an internal pressure of the gas bag (column 2, lines 42-61)
- First material and membrane defining an inflatable volume of the gas bag that increases when the membrane bulges forward toward the exterior (due to the membrane's elasticity)

It would have been obvious to one skilled in the art at the time that the invention was made to modify the gas bag protection device of Okada such that it comprised the membrane bulging toward an exterior before reaching the device, the membrane in the destroyed state providing for either an enlargement or reduction of the effective outflow cross-section as a function of an internal pressure in the gas bag, the inflatable volume defined by the first material and the membrane increasing when the membrane bulges forward toward the exterior, and the membrane being made of an elastic/elastomeric material as claimed in view of the teachings of Braunschadel so as to safely accommodate a variety of vehicle occupants who impart different loads when impacting the gas bag in a vehicle collision (Braunschadel: column 1, line 60-column 2, line 22).

Allowable Subject Matter

6. Claims 14 and 15 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: the allowable subject matter is the recess of the membrane having a pair of side walls that face each other and extend inwardly from the outlet opening, in combination with other features of claim 14.

Response to Arguments

8. Applicant's arguments filed 18 May 2006 have been fully considered but they are not persuasive.

With respect to page 9, the modification of Okada's gas bag to include Braunschadel's membrane meets the limitation of "said membrane bulges forward toward an exterior before reaching said device" at least in part because of the distance between the membrane and the device, as can be seen in figure 5 of the Okada reference.

With respect to page 10, the examiner disagrees with applicant's statement that the modification of Okada by Braunschadel would change the principal operation of Okada. In fact, the use of a bulging membrane would enhance the Okada gas bag by safely accommodating a variety of vehicle occupants who impart different loads when impacting the gas bag in a vehicle collision.

With respect to pages 10-11, the examiner points out that Braunschadel's fabric layer 4 is less gas permeable than gas permeable fabric layer 3. Thus, comparing the fabric layer 4 to "a small hole for air leakage" as disclosed in column 2 of Okada and pointed out by applicant would be an incongruous comparison.

With respect to page 12, "extensible" is defined by Merriam-Webster as "capable of being extended", and the membrane of Okada meets this limitation.

Response to Amendment

9. Examiner notes that the status identifier for claim 9 is incorrect because no amendment is currently being made to claim 9.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Art Unit 3616

LBR


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PRIMARY EXAMINER